

## ABSTRACT

The present invention discloses system and method for analyzing operational parameter data from a malfunctioning locomotive or other large land-based, self-powered transport equipment. The method allows for receiving new operational parameter data comprising a plurality of anomaly definitions from the malfunctioning equipment. The method further allows for selecting a plurality of distinct anomaly definitions from the new operational parameter data. Respective generating steps allow for generating at least one distinct anomaly definition cluster from the plurality of distinct anomaly definitions and for generating a plurality of weighted repair and distinct anomaly definition cluster combinations. An identifying step allows for identifying at least one repair for the at least one distinct anomaly definition cluster using the plurality of weighted repair and distinct anomaly definition cluster combinations.